Complete Summary

GUIDELINE TITLE

Smoking cessation.

BIBLIOGRAPHIC SOURCE(S)

Singapore Ministry of Health. Smoking cessation. Singapore: Singapore Ministry of Health; 2002 Apr. 33 p. [82 references]

COMPLETE SUMMARY CONTENT

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SCOPE

DISEASE/CONDITION(S)

Tobacco dependence

GUIDELINE CATEGORY

Counseling
Management
Treatment

CLINICAL SPECIALTY

Dentistry
Family Practice
Internal Medicine
Nursing
Pharmacology
Preventive Medicine
Psychiatry

INTENDED USERS

Advanced Practice Nurses
Dentists
Health Care Providers
Hospitals
Nurses
Pharmacists
Physician Assistants
Physicians
Psychologists/Non-physician Behavioral Health Clinicians

GUIDELINE OBJECTIVE(S)

To provide recommendations for smoking abstinence

TARGET POPULATION

Smokers in Singapore

INTERVENTIONS AND PRACTICES CONSIDERED

General Interventions

1. The 5 As approach to smoking cessation:
   - Ask
   - Advise
   - Assess
   - Assist
   - Arrange

Pharmacological Management

1. Nicotine replacement therapy (NRT), including nicotine patch (available as 24-hour and 16-hour patches) or nicotine inhaler
2. Bupropion hydrochloride slow release (SR)
3. Other drugs, such as clonidine and nortriptyline, as second-line therapy

Non-pharmacological Management (counseling and behavior therapy used in conjunction with pharmacotherapy)

1. Individualised counseling and skill-based training
2. Social support as part of treatment
3. Social support outside of treatment

MAJOR OUTCOMES CONSIDERED

- Health risks of smoking (e.g., lung cancer, heart disease, stroke, other lung disease, other cancers, impotence)
- Prevalence of smoking and smoking-related disease in Singapore
- Health benefits of smoking cessation

- Costs of smoking cessation interventions

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Ia Evidence obtained from meta-analysis of randomised controlled trials.

Ib Evidence obtained from at least one randomised controlled trial.

IIa Evidence obtained from at least one well-designed controlled study without randomisation.

IIb Evidence obtained from at least one other type of well-designed quasi-experimental study.

III Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.

IV Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Grades of Recommendation

Grade A (evidence levels Ia, Ib) Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation.

Grade B (evidence levels IIa, IIb, III) Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.

Grade C (evidence level IV) Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates absence of directly applicable clinical studies of good quality.

GPP (good practice points) Recommended best practice based on the clinical experience of the guideline development group.

COST ANALYSIS

Cost-Effectiveness of Smoking Interventions

Cost-effectiveness analyses have shown that smoking cessation treatments ranging from brief clinician advice to specialist-delivered intensive programmes, including pharmacotherapy, compare favourably with other medical interventions such as the treatment of hypertension and preventive screening interventions such as cervical pap smear screening or mammography. Studies in the United States showed that smoking cessation interventions cost less than US$1,000 per year of life saved. For comparison, cost estimates for the treatment of moderate hypertension is approximately US$10,000 per year of life saved.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Each recommendation is rated based on the levels of the evidence and the grades of recommendation. Definitions of the grades of the recommendations (A, B, C,

Good Practice Points) and levels of the evidence (Level I - Level IV) are presented at the end of the Major Recommendations field.

A - All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Clinicians and health care delivery systems should institutionalise the consistent identification, documentation, and treatment of every tobacco user seen in a health care setting (Chang, Zimmerman & Beck, 1995; National Cancer Institute, 1994; Ockene, 1987; Pederson, Baskersville & Wanklin, 1982; Robinson, Laurent & Little, 1995; Yarnall et al., 1998). (Grade A, Level I a, I b)

A - All clinicians should strongly advise every patient who smokes to quit (American Psychiatric Association, 1996; Orleans, 1993; US Department of Health and Human Services, 1988). (Grade A, Level I a)

A - Tobacco dependence is a chronic condition that often requires repeated intervention. Effective treatments that can produce long-term or even permanent abstinence exist. (Grade A, Level I b)

A - Treatment for tobacco dependence is clinically effective and cost-effective relative to other medical and disease prevention interventions. (Grade A, Level I a)

A - Brief tobacco dependence treatment is effective and every patient who uses tobacco should be offered at least brief treatment. (Grade A, Level II a)

A - There is a strong dose-response relation between the session length of person-to-person contact and successful treatment outcomes. Intensive interventions are more effective than less intensive interventions and should be used whenever possible. (Grade A, Levels I a, I b, II a)

A - Nicotine replacement therapy (NRT) is effective and safe for smoking cessation (Abelin et al., 1989; Bohadana et al., 2000; Dale et al., 1995; Hjalmarson et al., 1997; Hurt et al., 1994; Lewis et al., 1998; Silagy et al., 1994; Silagy et al., 2000; Tonnesen et al., 1993). (Grade A, Level I a)

A - There is no difference in efficacy between various forms of nicotine replacement (Gourlay et al., 1995; Hjalmarson et al., 1997; Hurt et al., 1994; Sachs, Sawe & Leischow, 1993; Silagy et al., 2000). (Grade A, Level I b)

A - There is currently no evidence that nicotine replacement therapy increases cardiovascular risk. (Grade A, Level I b)

A - Bupropion Slow-Release (SR) is safe and effective for smoking cessation. (Grade A, Level I b)

C - Once a tobacco user is identified and advised to quit, the healthcare practitioner should assess the patient´s willingness to quit at this time:

i.   Patients willing to try to quit tobacco use should be provided treatments identified as effective in this set of guidelines.

ii. Patients unwilling to try to quit tobacco use should be provided a brief intervention designed to increase their motivation to quit as described in this set of guidelines. (Grade C, Level IV)

Definitions:

Grades of Recommendation

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GPP (good practice points) Recommended best practice based on the clinical experience of the guideline development group.

Levels of Evidence

Ia Evidence obtained from meta-analysis of randomised controlled trials.

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IV Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

CLINICAL ALGORITHM(S)

The original guideline contains a clinical algorithm for the 5 As approach to smoking cessation intervention.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- It is beneficial to stop smoking at any age as it has major and immediate health benefits even for smokers who have smoked for many years. Within two days of quitting, the sensations of smell and taste are enhanced. Within two weeks to three months of quitting, circulation improves and lung function increases by up to 30%. The excess risk of heart disease is reduced by half within one year of stopping smoking. Within five years, the risk of heart disease reduces to the level of non-smokers. In those with existing heart disease, smoking cessation reduces the risk of recurrent infarction or death by half. The risk of lung cancer is reduced by 50-70% after 10 years of abstinence from smoking and continues to decline thereafter.
- Women who stop smoking before or during the first trimester of pregnancy reduce the risk to their baby to a level comparable to that of women who have never smoked. The incidence of babies born with low birth weight could potentially be reduced by 25% if pregnant women do not smoke during pregnancy.

POTENTIAL HARMS

Nicotine Patch

Skin irritation such as itch and rash caused by direct contact is the most common. Other side effects include nausea, vomiting, headache, insomnia and nightmares.

Nicotine Inhaler

Main side effects are irritation in the mouth and throat, and coughing. Other uncommon side effects listed in the product insert include nausea, vomiting, heartburn, nasal congestion, sinusitis, headache and dizziness.

Bupropion Hydrochloride Slow-Release

Adverse drug reactions reported to the Canadian Adverse Drug Reaction Monitoring Program (CADRMP) included myocardial infarction, seizures, hypoglycaemia, allergic reactions, nausea, anxiety, insomnia and dizziness.

CONTRAINDICATIONS

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The Canadian Adverse Drug Reaction Monitoring Program reported higher risk of hypoglycaemia with bupropion SR (slow-release) if there was concomitant use of

insulin. It is contraindicated in patients at risk for seizures. The product insert warns of a higher risk of seizures in patients using either oral hypoglycaemic agents or insulin together with Bupropion Slow-Release.

QUALIFYING STATEMENTS

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- These guidelines are not intended to serve as a standard of medical care. Standards of medical care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge advances and patterns of care evolve.
- The contents of this publication are guidelines to clinical practice, based on the best available evidence at the time of development. Adherence to these guidelines may not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care. Each physician is ultimately responsible for the management of his/her unique patient in the light of the clinical data presented by the patient and the diagnostic and treatment options available.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Recommendation for Evaluation/Clinical Audit

The most useful modality of evaluating the success of these guidelines is the National Survey of Smoking Prevalence which is conducted by the Ministry of Health every few years. This is part of the government´s effort to bring down national smoking rates via public education and other means. It is also important to recognise that every health care practitioner has a duty to every patient to attempt to help identify and help that patient quit smoking.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Singapore Ministry of Health. Smoking cessation. Singapore: Singapore Ministry of Health; 2002 Apr. 33 p. [82 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2002 Apr

GUIDELINE DEVELOPER(S)

Singapore Ministry of Health - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

Singapore Ministry of Health (MOH)

GUIDELINE COMMITTEE

Workgroup on Smoking Cessation

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Workgroup Members: Clinical Assoc Prof Philip Eng (Chairman); Maj (Dr) Gregory Chan; Dr Loo Chian Min; Dr Low Lip Pin; Dr Alfred Loh; Dr Swah Teck Sin; Dr Audrey Tan; Dr Veronica Tay; Dr Munidasa Winslow; Assoc Prof Wong Mee Lian; Ms Clare Yeo

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Singapore Ministry of Health Web site.

Print copies: Available from the Singapore Ministry of Health, College of Medicine Building, Mezzanine Floor 16 College Rd, Singapore 169854.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on May 20, 2003. The information was verified by the guideline developer on June 3, 2003.

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